

VAPOR GROWTH METHOD

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Inventor(s): TAKAHASHI YASUHITO; others: 01
Applicant(s): MATSUSHITA ELECTRIC IND CO LTD
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Abstract

PURPOSE: To obtain a high purity crystal thin film with good reproducibility by feeding reaction gases into a crystal growing chamber with care not to mix each other, and moving a substrate so as to contact the gases to epitaxially grow each atomic layer.

CONSTITUTION: A plurality of reaction gases are introduced into a crystal growing chamber, and a crystal thin film is formed on a substrate 15 on a susceptor 13 placed in the chamber 7. Here, the gases are fed with care not to mix each other to a predetermined position in the chamber 7, and the substrate is brought into contact with the gases at the predetermined position to grow the thin film for a predetermined time. Group III and V stock gases are wholly separated to adhere each one layer on the substrate 15, and only the surface ration of the substrate 15 is utilized to eliminate a problem, such as an automatic doping as the growing temperature drops. Thus, a high purity crystal thin film is obtained with good reproducibility.